NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offi-Address: COMMISSIONER FOR PATENTS

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NOTICE OF ALLOWANCE AND FEE(S) DUE

27975 7590 05/08/2008

ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST P.A. 1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE P.O. BOX 3791

ORLANDO, FL 32802-3791

EXAMINER THOMAS, SHANE M PAPER NUMBER

2186

ARTHNIT

DATE MAILED: 05/08/2008

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,462	04/08/2004	Guido D'Albore	03MAR43253801	7256

TITLE OF INVENTION: METHOD FOR PATCHING ROM INSTRUCTIONS IN AN ELECTRONIC EMBEDDED SYSTEM INCLUDING AT LEAST A FURTHER MEMORY PORTION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0	\$1740	08/08/2008

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

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10/820,462 TITLE OF INVENTION FURTHER MEMORY P		THING ROM INSTRUCT	Guido D'Albore TONS IN AN ELECTE	ONIC EMBEDDED		3MAR43253801 EM INCLUDING AT	7256 LEAST A
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	E PREV. PAID ISSU	E FEE	TOTAL FEE(8) DUE	DATE DUE
nonprovisional	NO	\$1440	\$300	\$0		\$1740	08/08/2008
EXAM	INER	ART UNIT	CLASS-SUBCLASS				
THOMAS,		2186	711-102000	_			
"Fee Address" ind. PTO/SB/47; Rev 03-0 Number is required. 3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 12 or more recent) attach ND RESIDENCE DATA less an assignee is ident h in 37 CFR 3.11. Comp	nge of Correspondence Indication form and. Use of a Customer A TO BE PRINTED ON	or agents OR, alteri (2) the name of a si registered attorney 2 registered patent listed, no name will ITHE PATENT (print or	ngle firm (having as or agent) and the nam ttorneys or agents. If be printed. type) patent. If an assignant assignment.	n memb es of u no nan	per a 2pp to	ocument has been filed for
Please check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	☐ Individual ☐ C	orporati	ion or other private gro	oup entity 🚨 Government
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NOTE: The Issue Fee an interest as shown by the	d Publication Fee (if req records of the United Sta	uired) will not be accepte tes Patent and Trademark	d from anyone other the Office.	in the applicant; a reg	istered	attorney or agent; or th	ne assignee or other party in
Authorized Signature				Date			
Typed or printed name				Registration 1	No		
This collection of inform an application. Confident submitting the complete this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C tiality is governed by 35 d application form to the ons for reducing this but firginia 22313-1450. DC 13-1450.	FR 1.311. The informatic U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the ONOT SEND FEES OR	on is required to obtain 1.14. This collection is depending upon the ir e Chief Information Of COMPLETED FORMS	or retain a benefit by estimated to take 12 dividual case. Any co ficer, U.S. Patent and TO THIS ADDRES	the pub minute omment Trader S. SEN	lic which is to file (and s to complete, including ts on the amount of timerk Office, U.S. Dep D TO: Commissioner	by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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27975 7590 05/08/2008			EXAMINER		
ALLEN, DYER,	DOPPELT, MILBR	THOMAS, SHANE M			
1401 CITRUS CENTER 255 SOUTH ORANGE AVENUE			ART UNIT	PAPER NUMBER	
P.O. BOX 3791		210/			

ORLANDO, FL 32802-3791

DATE MAILED: 05/08/2008

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 443 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 443 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

Notice of Allowability

Application No.	Applicant(s)	
10/820,462	D'ALBORE ET AL.	
Examiner	Art Unit	
PHANE M THOMAS	2106	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application to included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

- 1. This communication is responsive to RCE amendment filed 4/8/2008.
- The allowed claim(s) is/are 1-8,10-12,15-22 and 25-31 (renumbered 1-26).
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 - 1. \(\subseteq \text{ Certified copies of the priority documents have been received.} \)
 - 2. Certified copies of the priority documents have been received in Application No. _____
 - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

 DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- 1. | Notice of References Cited (PTO-892)
- 2.
 Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. X Examiner's Statement of Reasons for Allowance
- 9. ☐ Other .

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EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jeremy Berman (Reg. No. 50,582) on 4/26/2008.

The claims of the application have been amended as follows:

- 2. A method according to Claim 1 wherein the electronic system comprises a processor.
- 9. (Canceled)
- 16. A method for patching ROM instructions in an electronic system comprising: storing ROM instructions defining patching functionalities of the electronic system in a read only memory;

storing extended instructions with respect to the read only memory in an extended nonvolatile memory;

storing flags in an additional memory for indicating a change in the ROM instructions or the extended instructions being executed; and

alternating processing of the ROM instructions in the read only memory and the extended instructions in the extended non-volatile memory based upon a logic value of the flags;

the flags representing binary information associated to a subroutine to indicate whether the subroutine is in one of a free state and a busy state, the subroutine using a patching Application/Control Number: 10/820,462

Art Unit: 2186

mechanism defined by the ROM instructions, with each patching mechanism having a respective flag associated therewith.

Page 3

19. A method according to Claim 16 wherein the flags indicate whether the ROM

instructions in the read only memory or the extended instructions in the extended non-volatile

memory are to be executed.

25. An electronic system comprising:

a read only memory for storing ROM instructions defining patching functionalities of the

electronic system;

an extended non-volatile memory for storing extended instructions with respect to said

read only memory;

an additional memory for storing flags indicating a change in the instructions being

executed; and

a processor connected to said read only memory, said extended non-volatile memory and

said additional memory, said processor alternating processing of the ROM instructions in said

read only memory and the extended instructions in said extended non-volatile memory based

upon the flags;

the flags representing binary information associated to a subroutine to indicate whether

the subroutine is in one of a free state and a busy state, the subroutine using patching defined by

the ROM instructions, with each patching mechanism having a respective flag associated

therewith.

Art Unit: 2186

28. An electronic system according to Claim 25 wherein the flags indicate whether the ROM instructions in said read only memory or the extended instructions in said extended nonvolatile memory are to be executed.

Reasons for Allowance

Claims 1-8, 10-12, 15-22, and 25-31 (renumbered 1-27) are allowable over the prior art of record.

The following is an examiner's statement of reasons for allowance:

As per claims 1, 16, and 25, the prior art of record does not teach or suggest, either alone or in combination, the newly added limitation of the flag indicating whether the subroutine is in a busy state or a free state, when taken in context with the remainder of the claimed limitations.

Claims 2-8,10-12,15,17-22, and 26-31 are allowable and being dependent upon an allowable base claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHANE M. THOMAS whose telephone number is (571)272-4188. The examiner can normally be reached on M-F 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt M. Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane M. Thomas/ Patent Examiner 25 April 2008

/Matt Kim/ Supervisory Patent Examiner, Art Unit 2186